OPERATING INSTRUCTIONS
&
MAINTENANCE MANUAL

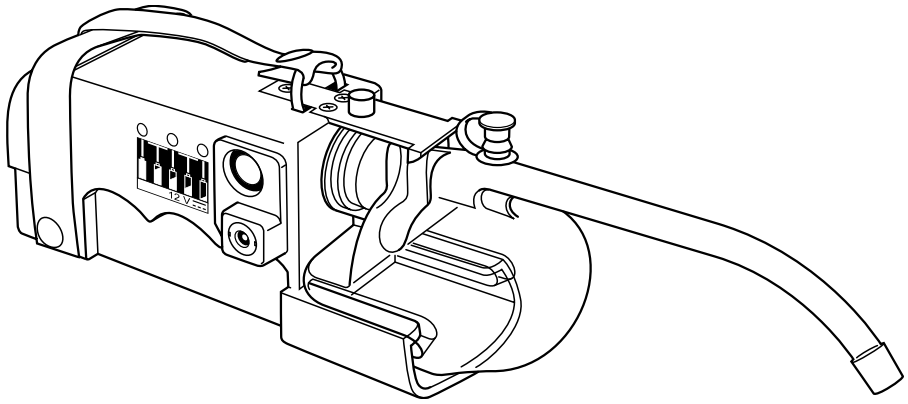
NEW GENERATION S-SCORT® SUCTION FOR FIRST RESPONSE

MODEL 2400 Series

S-SCORT...JR.® QUICKDRAW®

U.S. Patent No. 7,063,688

UNPRECEDENTED
HAND HELD BATTERY POWERED PORTABLE SUCTION



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CERTIFIED ISO 9001:2000

CE 0413

Caution-Notice Model 2400 Series - Except as Noted

1. Federal law restricts this device to the sale, distribution, and use by, or on the order of a physician, emergency medical technician, or other medical practitioner. For use by medical personnel trained in suctioning techniques and in the use of medical suction equipment.

2. This manual is restricted to the discussion of the use and maintenance of this device. It does not attempt to discuss professional techniques in suctioning procedures.

3. Operator should be thoroughly familiar with these operating instructions before this device is used.

4. The regulators' low setting reduces vacuum from -500+mmHg(High Vacuum / Low Flow) to -125mmHg (±20%) (Low Vacuum / Low Flow).

5. This device is not intended for suctioning neonates.

6. To prevent fire or injury when batteries are not in the device or charger, always place the batteries in a protective pack to cover the terminals.

7. Do not use in the presence of flammable agents or anesthetics.

8. The hydrophobic filter in the non-sterile, single use, canister will close the system when fluids contact the filter. See page 5.

9. Do not point the catheter directly upward when fluids are present in the canister. Pointing the catheter upward will allow fluids to reach and occlude the shut-off filter in the canister. See page 5.

10. External equipment intended for connection to signal input, signal output or other connectors, shall comply with relevant IEC standard (e.g. IEC 60950 for IT equipment and the IEC 60601 series for medical electrical equipment). In addition, all such combinations –systems – shall comply with the standard IEC 60601-1-1, safety requirements for medical electrical systems. Equipment not complying with IEC 60601 shall be kept outside the patient environment, as defined in the standard.
    Any person who connects external equipment to signal input, signal output or other connectors has formed a system and is therefore responsible for the system to comply with the requirements of IEC 60601-1-1. If in doubt, contact a qualified technician or your local representative. For further information, reference the SSCOR Technical Manual.

Caution-Notice Models 2400, 2401 and 2402

11. Observe the battery condition LED's on the control panel when running the unit from its internal power source. See pages 4 and 6 for an explanation of the battery condition LED's.

12. Reconnect the unit to the charging source after each use. Check battery condition indicator lights daily.

13. Do not remove the battery from the suction unit while the suction unit is connected to the charging source. This may result in a false reading from the battery condition indicator.

14. The battery is protected from a deep discharge condition by shutting down after approximately 30 minutes (±10%) running time. See page 6.

Caution-Notice Model 2402

15. Grounding reliability can only be achieved when connected to an equivalent receptacle marked "Hospital Only" or "Hospital Grade".

16. SSCOR's 115V AC/DC power converter charges batteries only. The AC Converter will not run the pump.

Caution-Notice Model 2403

17. Check the battery condition LED regularly. Observe the battery condition LED on the control panel when running the unit from its internal power source. Replace the battery when the red battery condition LED is lit. See pages 4 and 7 for an explanation of the battery condition LED's.

18. Do not use the battery after the "USE BY" date on the battery label.

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General Description

The S-SCORT...Jr.® Quickdraw is a non-sterile hand held 12V DC battery powered portable suction device to be used by professional personnel trained in Emergency Care techniques of constant suctioning to clear the airway by removing bodily fluids and particulate matter. Suction power can be regulated when full power may be considered harmful to the patient.

Models 2400, 2401 and 2402

A fully charged sealed lead acid battery will power the unit for 30 minutes (±10%). The battery is charged by an internal, dual mode battery charger. Battery condition is automatically monitored and is indicated by LED's on the side of the chassis. The charging system will fully charge the battery in 3 to 4 hours when connected to an electrical power source. S-SCORT suction units are powered by sealed lead acid batteries. A sealed lead acid battery is a very stable and reliable battery. Many factors can affect the life of a battery:

- Leaving a unit switched on after there is no longer enough power to run the pump can cause a battery to deep discharge. This can reduce the life of, or destroy the battery.
- Failing to charge a battery for an extended period of time will also cause the battery to go into deep discharge.
- Low temperatures may reduce the available capacity.
- High temperatures may cause deformation of the battery case and damage the battery.

Sealed lead acid batteries can easily be maintained to permit proper operation of the equipment. To protect the battery, after each procedure turn the unit off, put the unit on charge and always store the pump at room temperature. The only way to assure the battery has functional capacity, even if it is indicated the battery is fully charged, is to perform the weekly check suggested on page 7 of this operations manual.

Model 2403

A fully charged alkaline battery will power the unit continuously for 180 minutes (±10%). After running for 180 minutes (±10%) the unit will run at reduced power and the red battery condition LED will light indicating it is time to replace the battery. When the red LED begins to blink, only a few minutes run time remain. Install a new battery in the Quickdraw. The battery is a single use battery and is intended to be discarded once it has been discharged. Dispose of the battery according to local / regional / national requirements for the disposal of hazardous waste. Battery condition is automatically monitored and indicated by an indicator light on the side of the chassis.

Battery Warning

The 80613 alkaline battery will power the sealed lead acid version of the Quickdraw (Models 2400, 2401, and 2402) for 180 minutes (± 10%), however, the battery condition LEDs will not accurately display the condition of the battery and the alkaline battery cannot be charged.

The 80611 sealed lead acid battery can be used in the alkaline version of the Quickdraw (Model 2403). The LED will properly display the battery condition. The 80611 sealed lead acid battery will power the alkaline version of the Quickdraw (Model 2403) for 30 minutes (±10%), but cannot be charged within the unit.

U.S. Patent No. 7,063,688

ETL listed, conforms to UL 60601-1, IEC 60601-1, EN 60601-1-2, CSA C22.2 No. 601.1 - M90, IPX4 per IEC 60529.

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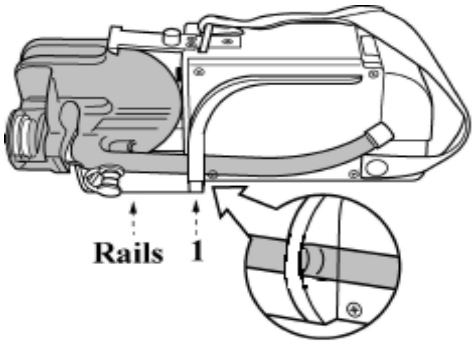
Description of Symbols

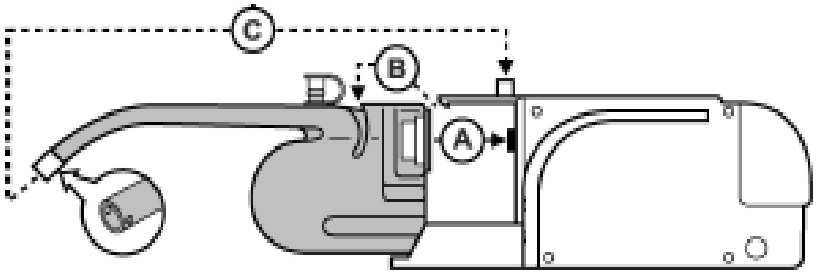
Symbol	Location	Meaning
	Side of Chassis	Low Battery
	Single Use Non-Sterile Canister	Single Use Only
	On/Off Switch	Push On / Push Off
	Single Use Non-Sterile Canister	Direction of Flow
	Serialized Label	Attention - Consult Accompanying Documents
	Shipping Carton	Manufacturer
	Shipping Carton	Date of Manufacture
	Shipping Carton	Authorized Representative in the European Community
	Serialized Label	Temperature Limitations
	Serialized Label	Separate collection for electronic equipment
	Serialized Label	Type BF Equipment
	Side of Chassis	Battery Fully Charged (Models 2400, 2401 and 2402 only)

Canister Installation and Storage



STORING CANISTERS ON THE CHASSIS FOR SPACE SAVING PORTABILITY

Locate the retention ring (1) at the side of the chassis. Reverse the position of the canister by pointing the catheter toward the device. Slide the body of the canister into the rails and the catheter tip through the retention ring. Push the canister toward the chassis until the canister latch (B) on top of the unit snaps into the detent on the canister. To release the canister, pull the canister latch up and slide the body of the canister out.



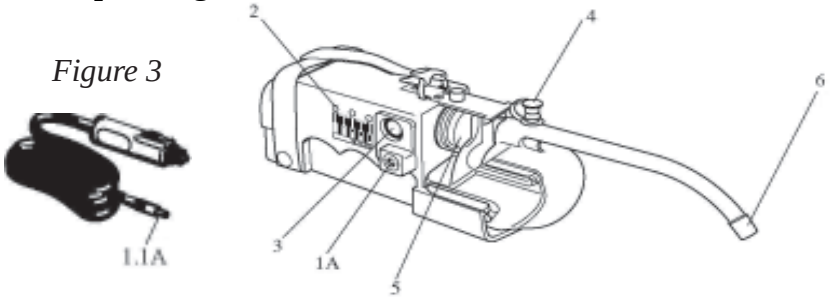
CANISTER INSTALLATION

Slide the canister into the front rails of the chassis with the catheter pointing forward. Push the canister back to meet the vacuum barb of the pump (A) at the front of the chassis. The top of the canister will slide under the latch (B) that extends from the top of the chassis. When the canister is securely placed against the vacuum barb of the pump, the latch will SNAP into the grooved ridge on top of the canister. Full vacuum is only possible when the latch SNAPS into place and holds the canister against the "O" ring surrounding the vacuum barb to form an airtight fit. **IN ORDER TO USE THE DEVICE, BE SURE THE PLASTIC TIP COVER IS NOT COVERING THE TIP OF THE CATHETER.** When the procedure is finished, attach the plastic tip cover to the tip of the catheter.

CAUTION: Once fluids enter the canister, do not point the tip of the catheter upward. When the canister capacity limit of 300cc/ml is exceeded or when a canister containing liquid is held up side down or vertically with the catheter pointed upward, the airflow will be shut off when liquids contact the hydrophobic filter (See Figures 3 & 4, 5).

ONCE THE FILTER COMES INTO CONTACT WITH FLUIDS, THE UNIT WILL NOT SUCTION UNTIL A NEW CANISTER IS INSTALLED. CHANGE CANISTER IMMEDIATELY AFTER MOISTURE SHUTS DOWN THE UNIT.

Figure 3



WEEKLY INSPECTION: Establish a weekly checklist to assure performance of the equipment. Perform the following steps:

A. Confirm the sealed lead acid battery is fully charged. If the unit is connected to a power source, the green full battery LED should be lit.

B. Run the unit for 10 minutes. NOTE: Remove the unit from the charging source before running the unit and make sure the tip cover (6) is removed from the tip of the catheter and placed on the canister latch.

C. If after 10 minutes the pump slows perceptibly or stops running, the battery has been subjected to irreparable damage. **REPLACE THE BATTERY!** If the pump is still running at full power after 10 minutes, turn the unit off and re-connect it to the power source.

SEALED LEAD ACID BATTERY CHARGING RECOMMENDATIONS

It is recommended to keep the battery connected to the charging source at all times when the unit is not in use. A DC power cable powers the device from the vehicle battery and charges the Quickdraw battery. A 115V AC/DC power converter will charge the battery. The 80521-100 and 80522-100 AC power converters only charge the Quickdraw battery, they will not run the pump. The Quickdraw must be disconnected from the converter to operate. The 80529 charger sold separately with some international units will charge the batteries and run the Quickdraw suction device from an AC power source.

To charge the Quickdraw from the vehicle's DC electrical system, hard wire the DC power cable to a properly fused DC vehicle circuit (in front of the master switch) or plug the cord into the cigarette lighter adapter. Connect the DC power cable to the Quickdraw by securely attaching the charging plug (1.1A) into the receptacle (1A). This charging method is designed to keep the battery charged at all times. If the suction unit is operated while it is hooked up to the vehicle it will utilize the vehicle power and save its own battery for emergency use. All SSCOR, Inc. suction units have a diode to prevent draw-down from the pump to the vehicle electrical system and a fuse to protect the pump from vehicle electrical surges. If your suction unit is wired to the vehicle battery via an automatic load switch power supply, be sure to use a filter in order to eliminate any voltage spikes.

BATTERY CHARGING VERIFICATION

Once the unit is connected to the charging source, check the LED indicators (2).

Significance of LED Indicators (2) on the Chassis

When the unit is first plugged into a power source, the yellow LED will blink while the PC Board confirms the battery has not been shorted. The LED will stop blinking and remain on while the battery is charging. If the yellow LED does not stop blinking, check to be sure a battery is in the battery compartment. If a battery is installed in the unit, check to be sure the contacts on the battery are positioned properly to line up with the contacts on the chassis. If the LED still does not stop blinking, you may have a bad battery. It may be time to replace the battery. When the battery has reached a full charge, the green LED will light.

When the Quickdraw is running and there is approximately one-third battery life remaining, the red LED will light. When the battery is virtually depleted and only a few minutes run time remain, the red LED will begin blinking. In order to protect the battery from deep discharge condition, the PC Board will automatically turn the device off when there is not enough power to effectively run the device. Put the device back on charge or install a fully charged battery into the Quickdraw suction device.

Operating Instructions Model 2403

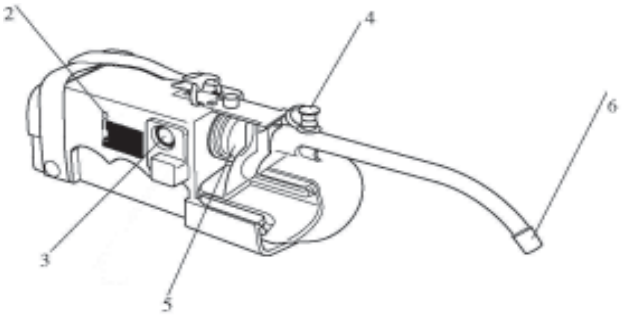


Figure 4

WEEKLY INSPECTION: Establish a weekly checklist to assure performance of the equipment. Perform the following steps:

A. Turn the Quickdraw on and run the unit for 30 seconds.

B. Observe the battery condition indicator LED (2). If it lights red, it is time to replace the battery (SSCOR part # 80613-100). Dispose of the battery according to local / regional / national requirements for the disposal of hazardous waste.

SIGNIFICANCE OF LED INDICATOR ON CHASSIS

When the Quickdraw is running and there is approximately one-quarter battery life remaining, the red LED (2) will light. Install a new fully charged alkaline battery (SSCOR part #80613-100) into the Quickdraw suction device. When the battery is virtually depleted and only a few minutes run time remain, the red LED will begin to blink. The PC Board will automatically turn the device off when there is not enough power to effectively run the device.

Operating Instructions ALL MODELS

OPERATION OF UNIT FOR PORTABLE USE

Disconnect the unit from the charging source (Model 2403 excluded) and turn the unit on (See Figures 3 & 4, 3). Make sure the canister is in the operating position and the cap that covers the tip of the catheter is attached to the latch on top of the canister. Check battery condition indicators (See Figures 3 & 4, 2), See pages 3 and 5.

TWO POSITION REGULATOR

If full power (-500+mmHg) is not required, the units low setting (-125mmHg ± 20%) is available by removing the regulator vent cap from the regulator vent (See Figures 3 & 4, 4). Be sure to replace the cap on the vent when full power is required or to dispose of the canister.

CANISTER AUTOMATIC SHUT OFF

When the hydrophobic filter comes into contact with fluids, it will occlude the sytem and the unit will not suction. When the canister capacity limit of 300cc/ml is exceeded or when a canister containing liquid is held upside down or vertically with the catheter pointed upward, the airflow will be shut off when liquids contact the hydrophobic filter (See Figures 3 & 4, 5).

ONCE THE FILTER COMES INTO CONTACT WITH FLUIDS, THE UNIT WILL NOT SUCTION UNTIL A NEW CANISTER IS INSTALLED. CHANGE CANISTER IMMEDIATELY AFTER MOISTURE SHUTS DOWN THE UNIT.

CANISTER DISPOSAL AFTER USE

The canister is for single use only. Replace the cap to the tip of the catheter (See Figures 3 & 4, 6) while the pump is still running to trap fluids before they spill. Dispose of the canister according to local / regional / national requirements for the disposal of hazardous waste. Install a new non-sterile single use canister on the unit. Return the device to the charging source as soon as possible (Model 2403 excluded).

General Specifications

CHARACTERISTICS		SPECIFICATIONS
Size:	Canister stored	10"L x 4"H x 4"W (27cm L x 11cm H x 11cm W)
	Canister in use	15"L x 4"H x 4"W (41cm L x 11cm H x 11 cm W)
Weight:		2.6 LBS (1.18 KG)
Vacuum Pump:		12V DC oil-less diaphragm, 0.7 A exceeds -500mmHg
Regulator : (See Figures 3 & 4, 4)		Reduces vacuum from -500+mmHg (High Vacuum / Low Flow) to -125mmHg (±20%) (Low Vacuum / Low Flow).
Battery :		12V DC Sealed Lead Acid replacement part #80611-100 Alkaline battery replacement part #80613-100 Please read pages 6 & 7 for battery care suggestions
Collection Canister:		300cc/ml capacity, SSCOR replacement part # 2480 Non Sterile, Single Use

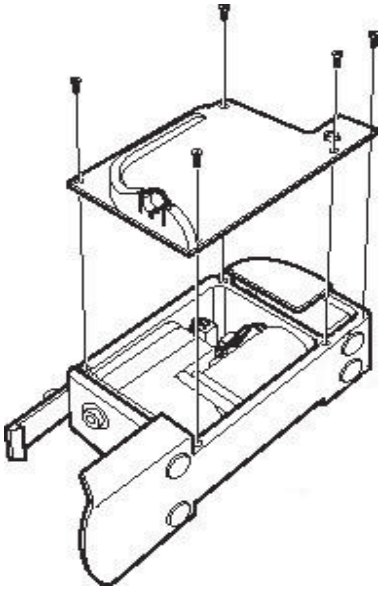
Trouble Shooting

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Does not function when switch is on (DC Power)	Battery discharged.....	Reconnect to charging source to activate charger or install a new fully charged battery
	Loose connections.....	Tighten connections
	Damaged PC Board.....	Replace PC Board
Battery condition indicator lights not lit	Power cord disconnected.....	Reconnect cord
	Damaged PC Board.....	Replace PC Board
No suction when pump is running	Canister not secure to chassis.....	Latch canister to chassis
	Regulator vent is open.....	Replace cap on vent
	Tip is on the catheter.....	Remove tip from catheter
	Fluids have shut down the filter in the canister.....	Replace canister
	Debris has collected in pump.....	Refer to maintenance section of this manual

Internal Access

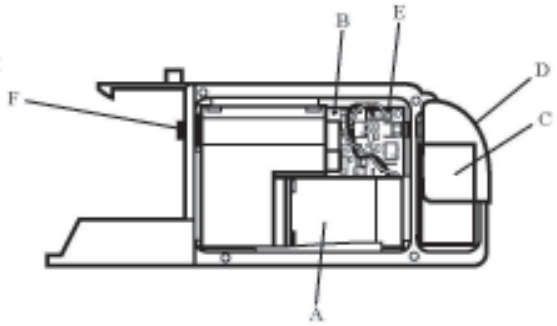
QUICKDRAW®

To Open / Close the Unit



Remove the five 4-40 screws using a phillips head screwdriver and lift off the chassis cover exposing the internal components.

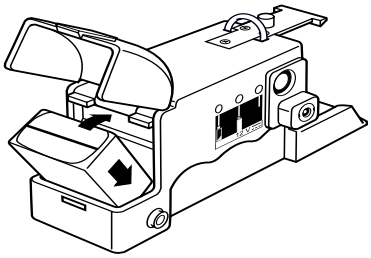
Internal Access



(A) Vacuum Pump; Do not attempt to service
(B) PC Board (behind the pump) – Electrical Circuits; Do not attempt to service
(C) Battery – 12Volt DC
(D) Battery Door
(E) Pump connection to PC Board
(F) Vacuum Barb and O-Ring

To Replace Battery

Open battery door and remove the depleted battery. Install a new battery as shown. Make sure the contacts on the battery mate to the terminals on the chassis. Close the battery door and turn the unit on to verify performance.



Accessories

DESCRIPTION:	PART NUMBER:
Replacement canister	2480
Case of 20 canisters	2480-20
DeskTop Battery Charger	2425
Spare Sealed Lead Acid battery with cover	80611-100
Spare Alkaline battery with cover	80613-100
Cover for battery terminals	60000-146
3' tubing and HI-D® "Big Stick®"*	2480-36
Carry case for unit and disposables	10076
Carry case for unit only	10077
AC Converter (110V AC)	80521-100
AC Converter (220V AC)	80522-100
Dual Mode Charger / Power Supply (100 - 240V AC)	80529
AC Hospital Grade Converter (110V AC)	80531-100
DC Charging Cable (Domestic)	80665
DC Charging Cable (International)	80965

*Note: The speed of a suctioning procedure may be reduced as much as 1/3 when the #2480-36 HI-D Stick and 3' of tubing is attached to the tip of a S-SCORT...Jr.® Quickdraw® Canister.

Warranty

SSCOR warrants that each new product is free from defects in material and workmanship under normal use and service for a period of one year from date of purchase. If returned to SSCOR, we will arrange for repairs or replacement within the terms of the warranty. The product should be decontaminated and returned properly packaged and postage prepaid. Loss or damage in transit to the factory shall be at the purchaser's risk. Please call 800-434-5211 or international +1 818-504-4054 for return authorization or for the location of an authorized repair center. Loss or damage in return shipment from SSCOR shall be at the purchaser's risk.

The warranty shall not apply to any SSCOR product which has been repaired by anyone other than an authorized SSCOR representative, or altered in any way so as, in SSCOR's judgment, to affect its safety or efficacy, nor which has been subject to misuse, negligence, or accident, nor which has had the serial number altered, effaced or removed.
Neither shall this warranty apply to any SSCOR product which has been connected otherwise than in accordance with the instructions furnished by SSCOR.

This warranty is in lieu of all other warranties expressed or implied and of all other obligations or liabilities on SSCOR's part, and SSCOR neither assumes, nor authorizes any representative or other persons to assume for it, any other liability in connection with the sale of SSCOR products.

This warranty gives you specific legal rights and you may also have other rights that vary from jurisdiction to jurisdiction. For countries where minimum warranty terms are determined by statute, the warranty term is the longer of the statutory period or the term listed above.

Batteries, disposable items including collection canisters, patient tubing and catheters are excluded from this warranty.

Maintenance

Preventive Care

Observe the following maintenance routine to ensure readiness at any time:

1. When the SSCOR aspirator is not in use, keep batteries on continuous charge (Model 2403 excluded).
2. Test the SSCOR aspirator at regular intervals; See pages 6 and 7.
3. Make sure the SSCOR aspirator is always clean and ready for use.

Note: No part requires lubrication and lubricants should not be used.

Sanitation

As soon as possible after use, the single use disposable canister, and if applicable, the disposable patient tubing and catheter should be discarded per the instructions outlined on page 7. Clean the exterior of the aspirator using mild detergent and clear water by dampening a clean lint free cloth. Rinse using clear water and another damp clean lint free cloth to remove any detergent residue.
NOTE: The hydrophobic filter in the canister helps to ensure that no moisture or particulate matter reaches the inside of the device. In the unlikely event that fluids may have reached the vacuum pump, read the decontamination section.
Do not reuse any single use disposable parts; do not submerge the device into any liquid, this will void the warranty and cause the device to malfunction.

Maintenance

Decontamination

Use personal protective equipment such as gloves, a smock, and face and eye protection when handling units that are suspected to be contaminated.

Part	Cleaning and Disinfecting
Collection Canister	Disposable item, re-use not permitted. Use new canister for each patient.
Patient Tubing (if applicable)	Disposable item, re-use not permitted. Use new patient tubing for each patient.
HI-D® Stick (if applicable)	Disposable item, re-use not permitted. Use new HI-D Stick for each patient.
Vacuum Pump	Wipe with damp cloth or disinfectant wipe. Sterilization not permitted. Vacuum pump should be replaced if contaminated.
PC Board	Sterilization not permitted. PC Board should be replaced if contaminated.
Plastic Chassis	Wipe with damp cloth or disinfectant wipe. Sterilization not permitted.

Caution: Disconnect the unit from any power source prior to cleaning the unit.
Disinfect the unit using a mild surface disinfectant, such as a 10:1 mixture of water and bleach. The unit is designed to suction contaminated fluids, which should be removed from the system immediately after use. In the unlikely event that fluids may have reached the vacuum pump, read the decontamination section of this manual. Your engineering department will have to open the unit to check the condition of the pump. When cleaning the interior of the chassis, disconnect the battery from the PC Board to prevent damaging the PC Board. The only forseeable way fluids may reach the vacuum pump is that the filter in the canister has been compromised or bypassed.

If the PC Board appears defective, return the unit to the factory for repair. Do not attempt to repair the PC Board.

If the vacuum pump appears defective, return the unit to the factory for repair. Do not attempt to repair the vacuum pump.

For technical assistance, call (800) 434-5211 or +1 (818) 504-4054.

WARNING:

To avoid any contaminants reaching the interior of the device, always remove the canister per the instructions in the sanitation section. Only use SSCOR, Inc. canisters (SSCOR Part #2480) affixed with hydrophobic filters.

DECLARATION OF CONFORMITY

SSCOR, Incorporated
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Type of Equipment: **Portable Powered Suction Pump**

Model Name and Type: **S-SCORT...Jr.® Quickdraw ® Model 2400 Series**
S-SCORT® new-Duet® Model 2314 Series
S-SCORT® VX-2® Model 2310 Series
S-SCORT® EVX™ Model 2309 Series

We herewith declare that the above mentioned product meets with the following requirements of the EC Directive concerning Medical Devices – 93/42/EEC and the Swedish regulation LVFS 2003:11

Safety:	**IEC/EN 60601-1: 1990 With A1 & A12:1993, A2:1995 & A13:1996**
EMC:	**IEC/EN 60601-1-2: 2001**
Safety Requirements - Medical Suction Unit	**ISO 10079-1**
Medical vehicles and their equipment	**EN 1789: 1999**
Degrees of Protection Provided by Enclosure	**IPX4**
Classification	**Class IIa**
Rules of Classification	**Annex IX, Rule 11**
Annex used for CE Declaration	**Annex V & Annex VI**
Notified Body	**INTERTEK SEMKO, AB**

Signature, Date: July 4, 2006
Name:
Title: **President**

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